

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Chaim GILON et al

Serial No.:

10/508,959

Filed:

August 16, 2005

For:

HISTONE CONJUGATES AND USES THEREOF

Group Art Unit: 1656

Attorney Docket: 28557

Examiner:

DESAI, ANAND U

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a PTO Form 1449 which lists citations which may be material to the patentability and examination of the above identified application. Also enclosed are copies of the references cited. These are submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. The Examiner is requested to make these citations of official record in this application.

This Information Disclosure Statement under 37 CFR 1.56 is not to be construed as a representation that a search has been made, that additional matter which is material to the examination of this application does not exist, or that any or more of these citations constitutes prior art.

Respectfully submitted,

Martin O. Mayuka

Martin D. Moynihan Registration No. 40,338

Dated: October 26, 2006

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S.Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMER Under the Experiment Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

OCT 3 0 2006

EM				Complete if Known			
INFORMATION DISCLOSURE				Application Number 10/508,959 Filing Date August 16, 2005			
						2005	
(use as many sheets as necessary)			First Named Inventor	Chaim GILON et al			
			Art Unit 1656				
			Examiner Name	DESAI, ANAND U			
	1	of	3	Attorney Docket Number	28557		
			U.S. PATENT	DOCUMENTS			
Cite No.	00	wn)	Publication Date MM-DD-YYYY			Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
1			07-17-2001	Buck et al			
					-		
	. , ,					10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
				Cole et al.			
6				Kohtz			
7	·		11-15-1983	Zhabilov et al			
8	US-5,939,070		08-17-1999	Johnson et al.			
9	US-5,427,958		06-27-1995	Plaue et al.			
10	US-2003/0170615		09-11-2003	Ustav et al.		- 00-	
11	US-4,476,301		10-09-1984	Imbach et al.			
12	US-5,539,082		07-23-1996	Nielsen et al.			
13	US-5,625,050		04-29-1997	Beaton et al.			
14	US-5,714,331		02-03-1998	Buchardt et a			
15	US-5,719,262		02-17-1998	Buchardt et a			
16	US-5,932,447		08-03-1999	Siegall			
17	US-6,303,374		10-16-2001	Zhang et al.			
18	US-6,270,098		08-07-2001	Heyring et al			
ļ	Cite No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	NFORMATION DI STATEMENT BY A (use as many sheets as 1	I	I	Application Number	Application Number	

		FOREIGN	N PATENT DOC	UMENTS			
Examiner Cite No. 1		Foreign Patent Documents Country Code ³ . Number ⁴ . Kind Code ⁵ (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Where Relevant Passa or Relevant Figures Appear			
	19	PCT WO 98/09985	03-12-1998	Eisenbach-Schwartz et al.		Π	
	20	PCT WO 98/07859	02-26-1998	Merberg et al.		Г	
	21	PCT WO 98/05635	02-12-1998	Owen et al.		lacksquare	
						L	
	<u>l</u>						
Examine Signatur				Date Considered			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Translation is attached:
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

		perwork Reduction Act of 1995, no persons are required to re		ess it contains a valid OMB	control number.						
	Su	bstitute for form 1449A/PTO	Application Number								
I	NFORM	MATION DISCLOSURE	Filing Date	August 16, 2005							
S	TATE	MENT BY APPLICANT	First Named Inventor	Chaim GILON et al							
	(use o	as many sheets as necessary)	Group Art Unit	1656							
	(450 0	is many sneets as necessary)									
			Examiner Name	DESAI, ANAND U							
Sheet	2	of 3	Attorney Docket Number	28557							
		OTHER PRIOR ART – NON PA	TENT LITERATURE DOC	UMENTS							
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.									
	22	Booth et al. "The Use of A 'Universal' Yeast Expression Vector to Produce An Antigenic Protein of Mycobacterium Leprae", Immunology Letters, 19: 65-70, 1988.									
	23										
	123	Gardella et al. "Expression of Human Parathyroid Hormone-(1-84) in Escherichia Coli as A Factor X-Cleavable Fusion Protein", The Journal of Biological Chemistry,									
		265(26): 15854-15859, 1990.									
	24	Brogli et al. "Light-Regulated Expression of A Pea Ribulose-1,5-Bisphosphate									
		Carboxylase Small Subunit Gene in Tran	sformed Plant Cells", Scien	ce, 224 : 838-							
	105	843, 1984.									
,	25	Balicki et al. "Structure and Function Correlation in Histone H2A Peptide-Mediated									
		Gene Transfer", Proc. Natl. Acad. Sci. USA, 99(11): 7467-7471, 2002. P.7469, Col.2, Lines 9-11.									
	26	Théodore et al. "Intraneuronal Delivery of Protein Kinase C Pseudosubstrate Leads to									
		Growth Cone Collaps", The Journal of Neuroscience, 15(11): 7158-7167, 1995.									
	27	Tudela et al. "TGF-β3 Is Required for the Adhesion and Intercalation of Medial Edge									
		Epithelial Cells During Palate Fusion", International Journal of Developmental									
	28	Biology, 46(3): 333-336, 2002. Boussif et al. "A Versatile Vector for Gene and Oligonucleotide Transfer Into Cells									
	20	in Culture and In Vivo: Polyethylenimine", Proc. Natl. Acad. Sci. USA, 92: 7297-									
		7301, 1995.		511, 52. 7257-							
V-1	29	Cotton et al. "Transferrin-Polycation-Me	diated Introduction of DNA	Into Human							
		Leukemic Cells: Stimulation by Agents That Affect the Survival of Transfected DNA									
		or Modulate Transferrin Receptor Levels	", Proc. Natl. Acad. Sci. US	A, 87: 4033-							
- VIII -	120	4037, 1990.			-						
	30	Johnson-Saliba et al. "Distinct Importin I Chromatin Assembly Factors", FEBS Le	Recognition Properties of Hi	istones and							
	31	Baake et al. "Characterisation of Nuclear	Localisation Signals of the	Four Human							
		Core Histones", Journal of Cellular Bioch									
	32	Fritz et al. "Gene Transfer Into Mammali									
		DNA", Human Gene Therapy, 7(12): 139	95-1404, 1996. Abstract.								
	33	Böttger et al. "Acid Nuclear Extracts as M	Mediators of Gene Transfer	and Expression",							
		Biochimica et Biophysica Acta, 1395(1):			1100						
	34	Chen et al. "Galactosylated Histone-Med		pression",							
	25	Human Gene Therapy, 5(4): 429-435, 19	94. Abstract.	-1 C A II							
	35	Ryser et al. "Histones and Basic Polyami by Tumor Cells in Culture", Science, 150									
		1 by runnot cens in culture, science, 150	<u>/(3033): 301</u> -303, 1903. Abs	stract.							

^{*} considered. Include copy of this form with next communication to applicant.

1. Applicant's unique citation designation number (optional).

2. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08b (08-03)
Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

		ostitute for form 1449A/PTO	Con	plete if Known						
т	NEODA	AATION DISCLOSUDE	Application Number 10/508,959							
		MATION DISCLOSURE	Filing Date	August 16, 2005						
	SIALE	MENT BY APPLICANT	First Named Inventor Chaim GILON et al							
	(use a	s many sheets as necessary)	Group Art Unit	1656						
			Examiner Name	DESAI, ANAND U						
Sheet	3	of 3	Attorney Docket Number	28557						
		OTHER PRIOR ART – NON PATE			_					
Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appr	ropriate), title of the						
Initials	No.1	item (book, magazine, journal, serial symposium, ca publisher, city and/or co	italog, etc.) date, page(s), volun untry where published.	ne-issue number(s),	T^2					
	36	Brix et al. "Extracellularly Occurring Histone H1 Mediates the Binding of								
		Thyroglobulin to the Cell Surface of Mouse Macrophages", Journal of Clinical								
		Investigations, 102(2): 283-293, 1998.								
	37		Murphy et al. "Kinetics of histone Endocytosis in Chinese Hamster Ovary Cells",							
		The Journal of Biological Chemistry, 257(1		-,,						
	38	Higashijima et al. "Regulation of G(i) and G(o) by Mastoparan, Related Amphiphilic								
		Peptides, and Hydrophobic Amines. Mecha	nism and Structural Dete	rminants of						
		Activity", The Journal of Biological Chemis	stry, 265(24): 14176-141	86, 1990.						
	39	Schmid et al. "ATP Is Required for Receptor-Mediated Endocytosis in Intact Cells",								
		The Journal of Cell Biology, 111(6/ Pt.1): 2307-2318, 1990.								
	40	Okamoto et al. "Cholesterol Oxidation Switches the Internalization Pathway of								
		Endothelin Receptor Type A From Caveolae to Clathrin-Coated Pits in Chinese Hamster Ovary Cells", The Journal of Biological Chemistry, 275(9): 6439-6440,								
		2000.								
	41	Adam et al. "Nuclear Protein Import in Permeabilized Mammalian Cells Requires								
	42	Soluble Cytoplasmic Factors", The Journal of Cell Biology, 111: 807-816, 1990.								
	42	Adam et al. "Cytosolic Proteins That Specifically Bind Nuclear Location Signals Are Receptors for Nuclear Import", Cell, 66(5): 837-847, 1991. Abstract.								
	43	Anderson et al. "Protocytosis: Sequestration and Transport of Small Molecules by								
	43	Caveolae", Science (Perspectives), 255: 410-411, 1998.								
	44	Suzuki et al. "Possible Existence of Common Internalization Mechanisms Among								
		Arginine-Rich Peptides", The Journal of Biological Chemistry, 277(4): 2437-2443,								
		2002.								
	45	Futaki et al. "Arginine-Rich Peptides. An A	bundant Source of Memb	orane-Permeable						
		Peptides Having Potential as Carriers for In	tracellular Protein Delive	ry", The Journal						
		of Biological Chemistry, 276(8): 5836-5840	0, 2001.							
	46	Polyakov et al. "Novel-TAT-Peptide Chelat	tes for Direct Transduction	on of	-					
		Technetium-99m and Rhenium Into Human	Cells for Imaging and R	adiotherapy",						
		Bioconjugate Chemistry, 11(6): 762-771, 20								
	47	Plank et al. "Application of Membrane-Acti	ive Peptides for Drug and	Gene Delivery						
		Across Cellular Membranes", Advanced Dr Abstract.	rug Delivery Reviews, 34	: 21-35, 1998.						
	48	Efthymiadis et al. "The HIV-1 Tat Nuclear	Localization Sequence C	onfers Novel						
	70	Nuclear Import Properties", The Journal of								
		1998.	Diological Chemistry, 27	3(3). 1023-1020,						

Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1. Applicant's unique citation designation number (optional). 2. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.